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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/757,131	01/14/2004	Mototaka Iwata	MIZ46.CON	3815

6980 7590 08/31/2005

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EXAMINER	
BLAU, STEPHEN LUTHER	
ART UNIT	**PAPER NUMBER**
3711	

DATE MAILED: 08/31/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/757,131	IWATA ET AL.	
	Examiner	Art Unit	
	Stephen L. Blau	3711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12 July 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *18-27* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *18-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *14 January 2004* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. Changing the dependency of claim 27 is agreed with.

Drawings

2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description: Reference numbers 16a, 16b and dimension H2 are not discussed in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 21-22 and 24-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. With respect to claims 18 and 24, it is uncertain what the meaning of the outer surface extending to the periphery of said cavity portion side of said sole portion. It is uncertain how one would determine this. The sole portion does not have a cavity side at where the outer surface of the wall portion meets with the sole. There is not proper antecedent basis in the specification for this structure in the claims. Claim 24 is indefinite in that it is uncertain what the preamble is. Does the preamble include the single cavity portion? Claim 24 is indefinite in that in lines 6-7 there is improper antecedent basis for the term "said single projected wall portion" in that a single projected wall portion was not previously disclosed. Claims 25-27 are rejected in that it adds additional structure and this is not allowed to a claim which depends on a claim (24) which has "consists of" immediately following the preamble (Article 2111.03 MPEP). Claims 21-22 are rejected in that they add additional structure to the projected wall portion and this is not allowed to a claim which depends on a claim (18) which has "consists of" in the body of the claim for the projected wall portion (Article 2111.03 MPEP). Claims 19-20, 23, and 25-27 are rejected for depending on a rejected base claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 24-25 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Schmidt (5,330,187).

Schmidt discloses a head consisting of a projected wall portion offset from a face portion and extending upward from a sole portion and having a length along an axis toe to heel that is less than a length of a cavity portion along an axis in the form of slots ending the length of a wall with the surface with the reference number 81 located in figure 17 (Fig. 17), a groove extending along a face portion provided on a surface on a single cavity portion side of a sole portion (Fig. 2), an inner surface facing a face portion and an outer surface extending to a periphery of a cavity portion side of a sole portion in the form of the wall and sole are continuously connected (Fig. 2), and a projected wall having a trapezoidal shape (Fig. 17).

Or alternatively, Schmidt discloses a head consisting of a single projected wall portion offset from a face having a length along a first axis that is less than a length of a cavity portion along a first axis and an inner surface facing a face portion and an outer surface extending to a periphery of a cavity portion side of a sole portion in the form of

an embodiment which only has undercuts/grooves at the top wall and bottom wall (Col. 3, Lns. 1-15) and has slots at the corners (Fig. 17). This would result in only one single wall portion meeting the conditions of the claims.

7. Claims 24-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Stites (6,695,937).

Stites discloses a head consisting of a projected wall portion offset from a face portion and extending upward from a sole portion (Fig. 3) and having a length along an axis toe to heel that is less than a length of a cavity portion along an axis (Fig. 2), a groove extending along a face portion being provided on a surface on a cavity portion side of a sole portion (Fig. 3), wall portion rising along a face portion toward a top edge portion (Fig. 2), an inner surface facing a face portion and an outer surface extending to a periphery of a cavity portion side of a sole portion in the form of the wall and sole are continuously connected and meet (Fig. 3).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 26 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt (5,330,187) in view of Kosmatka (GB 2,331,249).

Schmidt lacks a thickness of a ball hitting portion in a face portion being made greater than a thickness of a top edge side portion of a face portion located between a ball hitting portion and a top edge portion and at least as thick as a thickness of a sole side portion of a face portion that is located between a ball hitting portion and a sole portion and that extends along a groove.

Kosmatka discloses a thickness of a ball hitting portion in a face portion being made greater than a thickness of a top edge side portion of a face portion located between a ball hitting portion and a top edge portion and at least as thick as a thickness of a sole side portion of a face portion that is located between a ball hitting portion and a sole portion and that extends along a groove in the form of a head being able to hit a ball low on a face (Fig. 1D) in order to design a rear face assigning thickness to each area of the face according to a magnitude of internal stress expected to be experienced by each area when a force due to striking a ball by a club front face is experienced and assigning a greater thickness in areas where the stress is greater and lesser thickness where the stress is lesser (Abstract). In view of the publication of Kosmatka it would have been obvious to modify the head of Schmidt to have a thickness of a ball hitting portion in a face portion being made greater than a thickness of a top edge side portion of a face portion located between a ball hitting portion and a top edge portion and at least as thick as a thickness of a sole side portion of a face portion that is located

between a ball hitting portion and a sole portion and that extends along a groove in order to design a rear face assigning thickness to each area of the face according to a magnitude of internal stress expected to be experienced by each area when a force due to striking a ball by a club front face is experienced and assigning a greater thickness in areas where the stress is greater and lesser thickness where the stress is lesser.

10. Claims 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt (5,330,187) in view of Kosmatka (GB 2,331,249).

Schmidt lacks a thickness of a ball hitting portion in a face portion being made greater than a thickness of a top edge side portion of a face portion located between a ball hitting portion and a top edge portion and at least as thick as a thickness of a sole side portion of a face portion that is located between a ball hitting portion and a sole portion and that extends along a groove, a thickness of a ball hitting portion being made greater than a thickness of a toe side portion of a face portion located between a toe portion of a head portion and a ball hitting portion and greater than a thickness of a heel side portion of a face portion located between a heel portion of a head portion and a ball hitting portion, a thickness of a first region as defined by the claims being smaller than a thickness of a second region defined by the claims, and a thickness of a third region as defined by the claims being smaller than a thickness of a fourth region as defined by the claims.

Kosmatka discloses a thickness of a ball hitting portion in a face portion being made greater than a thickness of a top edge side portion of a face portion located

between a ball hitting portion and a top edge portion and at least as thick as a thickness of a sole side portion of a face portion that is located between a ball hitting portion and a sole portion and that extends along a groove in the form of a head being able to hit a ball low on a face (Fig. 1D), a thickness of a ball hitting portion being made greater than a thickness of a toe side portion of a face portion located between a toe portion of a head portion and a ball hitting portion and greater than a thickness of a heel side portion of a face portion located between a heel portion of a head portion and a ball hitting portion (Figs. 1B, 1C, 1E), and a thickness of a first region as defined by the claims being smaller than a thickness of a second region defined by the claims, and a thickness of a third region as defined by the claims being smaller than a thickness of a fourth region as defined by the claims (Fig. 1B) in order to design a rear face assigning thickness to each area of the face according to a magnitude of internal stress expected to be experienced by each area when a force due to striking a ball by a club front face is experienced and assigning a greater thickness in areas where the stress is greater and lesser thickness where the stress is lesser (Abstract). In view of the publication of Kosmatka it would have been obvious to modify the head of Schmidt to have a thickness of a ball hitting portion in a face portion being made greater than a thickness of a top edge side portion of a face portion located between a ball hitting portion and a top edge portion and at least as thick as a thickness of a sole side portion of a face portion that is located between a ball hitting portion and a sole portion and that extends along a groove, a thickness of a ball hitting portion being made greater than a thickness of a toe side portion of a face portion located between a toe portion of a head portion

and a ball hitting portion and greater than a thickness of a heel side portion of a face portion located between a heel portion of a head portion and a ball hitting portion, a thickness of a first region as defined by the claims being smaller than a thickness of a second region defined by the claims, and a thickness of a third region as defined by the claims being smaller than a thickness of a fourth region as defined by the claims in order to design a rear face assigning thickness to each area of the face according to a magnitude of internal stress expected to be experienced by each area when a force due to striking a ball by a club front face is experienced and assigning a greater thickness in areas where the stress is greater and lesser thickness where the stress is lesser.

11. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Schmidt (5,330,187) in view of Kosmatka (2,331,249) as applied to claims 18-21 above, and further in view of admitted art (Official Notice).

Due to a lack of an argument, it is admitted that it is well known to form golf club heads by forging.

12. Claims 18-21 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stites (6,695,937) in view of Kosmatka (GB 2,331,249).

Stites discloses a head consisting of a single projected wall portion offset from a face portion and extending upward from a sole portion (Fig. 3) and having a length along an axis toe to heel that is less than a length of a cavity portion along an axis (Fig. 2), a groove extending along a face portion being provided on a surface on a cavity

portion side of a sole portion (Fig. 3), wall portion rising along a face portion toward a top edge portion (Fig. 2), an inner surface facing a face portion and an outer surface extending to a periphery of a cavity portion side of a sole portion in the form of the wall and sole are continuously connected and meet (Fig. 3).

Stites lacks a thickness of a ball hitting portion in a face portion being made greater than a thickness of a top edge side portion of a face portion located between a ball hitting portion and a top edge portion and at least as thick as a thickness of a sole side portion of a face portion that is located between a ball hitting portion and a sole portion and that extends along a groove, a thickness of a ball hitting portion being made greater than a thickness of a toe side portion of a face portion located between a toe portion of a head portion and a ball hitting portion and greater than a thickness of a heel side portion of a face portion located between a heel portion of a head portion and a ball hitting portion, a thickness of a first region as defined by the claims being smaller than a thickness of a second region defined by the claims, and a thickness of a third region as defined by the claims being smaller than a thickness of a fourth region as defined by the claims.

Kosmatka discloses a thickness of a ball hitting portion in a face portion being made greater than a thickness of a top edge side portion of a face portion located between a ball hitting portion and a top edge portion and at least as thick as a thickness of a sole side portion of a face portion that is located between a ball hitting portion and a sole portion and that extends along a groove in the form of a head being able to hit a ball low on a face (Fig. 1D), a thickness of a ball hitting portion being made greater than

a thickness of a toe side portion of a face portion located between a toe portion of a head portion and a ball hitting portion and greater than a thickness of a heel side portion of a face portion located between a heel portion of a head portion and a ball hitting portion (Figs. 1B, 1C, 1E), and a thickness of a first region as defined by the claims being smaller than a thickness of a second region defined by the claims, and a thickness of a third region as defined by the claims being smaller than a thickness of a fourth region as defined by the claims (Fig. 1B) in order to design a rear face assigning thickness to each area of the face according to a magnitude of internal stress expected to be experienced by each area when a force due to striking a ball by a club front face is experienced and assigning a greater thickness in areas where the stress is greater and lesser thickness where the stress is lesser (Abstract). In view of the publication of Kosmatka it would have been obvious to modify the head of Stites to have a thickness of a ball hitting portion in a face portion being made greater than a thickness of a top edge side portion of a face portion located between a ball hitting portion and a top edge portion and at least as thick as a thickness of a sole side portion of a face portion that is located between a ball hitting portion and a sole portion and that extends along a groove, a thickness of a ball hitting portion being made greater than a thickness of a toe side portion of a face portion located between a toe portion of a head portion and a ball hitting portion and greater than a thickness of a heel side portion of a face portion located between a heel portion of a head portion and a ball hitting portion, a thickness of a first region as defined by the claims being smaller than a thickness of a second region defined by the claims, and a thickness of a third region as defined by the claims

being smaller than a thickness of a fourth region as defined by the claims in order to design a rear face assigning thickness to each area of the face according to a magnitude of internal stress expected to be experienced by each area when a force due to striking a ball by a club front face is experienced and assigning a greater thickness in areas where the stress is greater and lesser thickness where the stress is lesser.

13. Claims 22 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stites (6,695,937) in view of Kosmatka (2,331,249) as applied to claims 18-21 and 26 above, and further in view Stites (6,077,173).

Stites (6,695,937) lacks a projected wall portion being trapezoidal in shape. Stites (6,077,173) discloses bridge members extending from a sole of a head (Figs. 13) being trapezoidal in shape (Col. 9, Lns. 37-43). In view of Stites (6,077,173) it would have been obvious to modify the head of Stites (6,695,937) to have a projected wall portion being trapezoidal in shape in order to utilize another design used in the market place of placing weight at a rear of a head and in order to distribute more weight lengthwise along a cantilever mass to distribute its effect more lengthwise.

14. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stites (6,695,937) in view of Kosmatka (2,331,249) as applied to claims 18-21 and 26 above, and further in view of admitted art (Official Notice).

Due to a lack of an argument, it is admitted that it is well known to form golf club heads by forging.

Response to Arguments

15. With respect to claim 24, the argument that Schmidt fails to disclose a head having a cavity portion and consists of a single projected wall portion less than the cavity portion is disagreed with. Claim 24 does not claim a head consisting of a single projected wall portion but a head consisting of a wall portion. Clearly the bottom wall of Schmidt has all the elements of structure as required by the word consisting. In addition, for the embodiment where there is only a bottom and top wall portion (i.e. undercut recesses) of Schmidt for the embodiment of figure 17, Schmidt's head consists of a single projected wall portion which of all the elements of structure required for the wall portion per claim 18 and no other wall portion has all these elements. The argument that the reference of Schmidt is improper due to Schmidt requiring two recesses is disagreed with. The examiner believes that the claims are not written to preclude a head having more than one wall offset from a face portion. Words as "having only one wall portion offset from a face portion" as well as defining were the only one wall portion exists and where it ends would be more limiting. The argument that Stites is improper due to Stites having a cantilever mass insert from the peripheral mass that forms a cavity and as such does not read on the element of structure of an outer surface that extends to the periphery of the cavity portion side of the sole portion is disagreed with. The bottom of the cantilever mass extends to periphery to connect with the sole (Fig. 3). The argument that it is improper to combine the references of

Stites I with Stites II because a trapezoidal shape would removed more mass directly behind the sweet spot is disagreed with. Different golfers have different areas where they hit balls off a face. Some golfers hit close to a point and other golfers hit in a larger area. A trapezoidal shape would benefit a golfer who uses a larger area to hit balls from.

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steve Blau whose telephone number is (571) 272-4406. The examiner is available Monday through Friday from 8 a.m. to 4:30 p.m.. If the

examiner is unavailable you can contact his supervisor Greg Vidovich whose telephone number is (571) 272-4415. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-3700. (TC 3700 Official Fax 571-273-8300)

slb/ 25 August 2005

STEPHEN BLAU
PRIMARY EXAMINER